

Status of Claims:

1 (Previously presented). A method of performing a Cyclic Redundancy Check (CRC) calculation, said CRC calculation done with N-bit at a time [500] over a binary string of data bits [520], said CRC calculation based on a generator polynomial G(X) [130] of degree d [131], said CRC calculation having intermediate and final results fitting a d-bit wide Field Check Sequence (FCS) [120], said generator polynomial allowing to form a multiplicative cyclic group comprised of d-bit wide binary vectors [400], said method comprising the steps of:

picking [1100] a new N-bit chunk of data bits from said binary string of data bits;

dividing [1110], modulo said generator polynomial G(X), said new N-bit chunk of data bits thus, getting a d-bit wide division result [535];

generating a value for FCS displaced within said cyclic group of d-bit wide binary vectors;

adding [1130], modulo two, said d-bit wide division result and said displaced d-bit wide FCS so generated;

updating [1140] said d-bit wide FCS;

checking if more data bits of said binary string of data bits are left for calculation:

if yes [1151], repeating all recited steps;

if not [1152], exiting the method after checking step;

thereby, getting a final result of said CRC calculation in said d-bit wide FCS.

2 (Previously presented). The method according to claim 1 wherein said final result is utilized to generate said d-bit wide FCS [510] for said binary string of data bits.

3 (Previously presented). The method according to claims 1 or 2 wherein said final result is a checking result of said binary string of data bits [520] including said d-bit wide FCS [510].

4 (Previously presented). The method according to claim 1 wherein said dividing step is omitted, if value of said N-bit is equal to said degree d.

5 (Previously presented). The method according to claim 4 wherein, if value of said N-bit is lower than said degree d, the further step of: padding said N-bit chunk of data with enough leading zeros to match said d-bit wide FCS [540].

6 (Previously presented). The method according to claim 1 wherein said CRC calculation is done from a most significant bit (MSB) [530] of said binary string of data bits and wherein said generating step includes a forward multiplication [560] of said d-bit wide FCS.

7 (Previously presented). The method according to claim 1 wherein said CRC calculation is done from a least significant bit (LSB) [710] of said binary string of data bits and wherein said generating step includes a backward multiplication [760] of said d-bit wide FCS.

8 (Previously presented). The method according to claim 1 wherein said binary string of data bits is a frame or message moved over a communications network.

9 (Previously presented). The method according to claim 1 wherein said binary string of data bits is derived or stored as a file in a computing system.

10. (Canceled)

11. (Canceled)

12 (Previously presented). A system, in particular a processor [1400], executing instructions for carrying out CRC calculations according to the method of claims 1 or 2.

13 (Previously presented). A system, in particular a state machine [1000] aimed at

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